PHASE CHART

| | - R Y G | 2 | 3 (R) (Y) (G) | 4 R Y G | 5 (R) (Y) | 6 RYY | 7 (R) (Y) (G) | 8 R > G | 9 (R)>(G) | 10 R > G | | 12 R Y G | |
|-----------------------|------------------|--------------------|------------------------|------------------|--------------|-------------|------------------------|------------|----------------|-------------|----------------|-------------------|------------|
| PHASE I + 5 | ← G | ← G | R | R | ← G | ← G— | R | R | R | R | R | R | • |
| I + 5 CHANGE | TO I | TO 1+6, 2+5 OR 2+6 | | | | | | | | | | | √ |
| PHASE I + 6 | ← R | ← R | R | R | ← -G | ← -G | R | R | R | R | R | R | 4 |
| I + 6 CHANGE | ← R— | ← R | R | R | ← Y | ← Y | R | R | R | R | R | R | (|
| PHASE 2 + 5 | ← G | ← G— | G | G | ← R— | ← R | R | R | R | R | R | R | <u>•</u> |
| 2 + 5 CHANGE | ◆ -Y | ← Y— | G | G | ← R | ← R | R | R | R | R | R | R | |
| PHASE 2 + 6 | ← R— | ← R— | G | G | ← -R | ← R | G | G | R | R | R | R | |
| 2 + 6 CHANGE | ← R | ← R | Y | Υ | ← R | ← R | Υ | Υ | R | R | R | R | |
| PHASE 3 | ← -R | ← R | R | R | ← R | ← R | R | R | R | R | G/ ← G− | G | |
| 3 CHANGE | ← R | ← R— | R | R | ← R— | ← R | R | R | R | R | Υ | Υ | |
| PHASE 4 | ← -R | ← R— | R | R | ← R— | ← R | R | R | G/ ← G− | G | R | R | ★ ↑ |
| 4 CHANGE | ◆ R— | ← R- | R | R | ← R— | ←- R | R | R | Y | Υ | R | R | |
| FLASHING OPERATION | FL/R | FL/R | FL/Y | FL/Y | FL/R | FL/R | FL/Y | FL/Y | FL/R | FL/R | FL/R | FL/R | T + |

PRE-EMPTION PHASES

| PE #I | ← G— | ← G | G | G | ◆R | R | R | R | R | R | R | A |
|--------------|-------------|-------------|---|---|--------------------------------|---|---|----------------|---|---|---|------------|
| PE #I CHANGE | ← Y | ← Y | Y | Υ | ← R— ← R— | R | R | R | R | R | R | — |
| PE #2 | ← R | ← R— | R | R | ← R ← R ← | R | R | G /← G− | G | R | R | ← ↑ |
| PE #2 CHANGE | ← R | ← R | R | R | ← R— ← R— | R | R | Y | Y | R | R | |

NOTE:

SIGNAL HEAD 50 AND ALL PEDESTRIAN SIGNAL HEADS ARE TO BE COVERED DURING CONSTRUCTION.

PROJECT DESCRIPTION

GENERAL:

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING INTERSECTION TRAFFIC SIGNAL AND STREET LIGHTING AT MD 235 AND MAPLE ROAD IN ST. MARY'S COUNTY. MD 235 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION:

I. NORMAL OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA SIX-PHASE, FULL-TRAFFIC ACTUATED MODE, WITH THE MD 235 APPROACHES RUNNING CONCURRENTLY AND MD 237-MAPLE ROAD APPROACHES OPERATING AS SPLIT PHASES. EXCLUSIVE LEFT TURN PHASING WILL BE PROVIDED FOR THE MD 235 APPROACHES.

2. SPECIAL OPERATION

THE INTERSECTION WILL OPERATE AS INDICATED ABOVE UNLESS THE OPTICOM DEVICE IS ACTIVATED WHICH WILL PRE-EMPT THE TRAFFIC SIGNAL AND STOP THE NB. EB AND WB APPROACHES.

CONTROLLER REQUIREMENTS:

A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH FIVE (5) FOUR-CHANNEL, TIME DELAY OUTPUT LOOP DETECTOR AMPLIFIERS. INTERSECTION MONITOR WITH BATTERY BACK-UP FOR PHONE DROP. TELEMETRY MODULE, ISOLATION BOARD AND SPECIAL RELAY HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.

SPECIAL NOTE:

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 787-7631 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE AND PHONE NUMBER.

PROJECT CONTACTS

THE CONTACT PERSONS FOR DISTRICT #5 ARE AS FOLLOWS:

MR. PAUL ARMSTRONG DISTRICT ENGINEER PHONE: 410-841-5450

MR. LAWRENCE E. ELLIOTT ASSISTANT DISTRICT ENGINEER - TRAFFIC PHONE: 410-841-5450

MR. JOHN MAYS UTILITY ENGINEER PHONE: 410-841-5450

MR. RICHARD L. DAFF. SR. CHIEF, TRAFFIC OPERATIONS DIVISION PHONE: 410-787-7630

THE POWER COMPANY REPRESENTATIVE IS: SOUTHERN MARYLAND ELECTRIC COOPERATIVE (SMECO) PO BOX 1937

HUGHESVILLE, MD 20637-1937 301-274-3111

TELE:(410)728-2900 FAX:(410)728-3160

A,B,C,D,E,F EX I/C EX I/C EX I/C-

WIRING DIAGRAM

WIRING KEY

2-CONDUCTOR ELECTRICAL CABLE A,B,C,D,E,F } (ALUMINUM SHIELDED)

LW - LOOP WIRE (NO. 14 A.W.G.)

ES - EXISTING SERVICE

DED/SMH

_____BJH

DK/DLA/SMH

SCALE: N.T.S. S.H.A. NO. SEE TITLE SHEET

 $+ - \frac{3}{4}$ IN. \times 10 FT. GROUND ROD

EX I/C - EXISTING INTERCONNECT (12 PAIR COMMUNICATION CABLE. SELF SUPPORTING)

> PHASE 2 TEMPORARY TRAFFIC SIGNALS

SS-5

REVISIONS: APPROVALS: CHIEF SIGNAL DESIGN SECTION DRAWN BY: RUMMEL, KLEPPER ASST, DISTRICT ENGINEER TRAFFIC & KAHL, LLP DES. BY: CHK. BY: CONSULTING ENGINEERS CHIEF TRAFFIC ENGINEERING DESIGN DIVISION Nov.I, 1998
Reconstruct Due To New DATE: MAY 7, 1999 F.A.P. NO. SEE TITLE SHEET **8I MOSHER STREET** BALTIMORE, MARYLAND 21217 Geometrics, SHA No.: SM7685270

MAN-MAN- SEK AND PORECTOR OFFICE OF TRAFFIC & SAFETY

MDOT - STATE HIGHWAY ADMINISTRATION Office of Traffic & Safety TRAFFIC ENGINEERING DESIGN DIVISION

LOG MILE # 18023514.97

MD 235 @ MD 237 / MAPLE RD. SIGNAL PLAN

REGION NO.

SEE TITLE

SHEET

COUNTY: ST. MARY'S

TS/STD. NO.:

912I-X2-GI1

SHEET NO. <u>149</u> of <u>241</u>